INDEX TO VOLUME 68 (PART B) 1990

AUTHORS AND PAPERS

A

Al-Duri, B. and McKay, G., Comparison in theory and application of several mathematical models to predict kinetics of single component batch adsorption systems 254

Alexander, J. M., Gas phase ignition in liquid phase air oxidation processes: A recipe for disaster 17

Aracil, J. (see Hidajat, K.) 57, 67

Arrowsmith, A., Ashton, A., and Parsons, A. C. C., Gaseous emission control by gas absorption—some case studies 176

Ashton, A. (see Arrowsmith, A.) 176

B

Belshaw, C., Jones, A. P., Hosker, D. and Fox, A. G., Industrial effluent management and control in the North West 219

Beltran, F. (see Kolaczkowski, S. T.) 49

Bujac, P. D. B. (see Edwards, J. C.) 203

C

Campbell, J. D. (see Steele, D. F.) 115

Cassidy, K., CIMAH and the environment 195

Catlin, C. A., CLICHE—A generally applicable and practicable offshore explosion model 245

Cooper, D. J. (see Sevon, D. W.) 277

Craig, D. R. (see Steele, D. F.) 115

Crawley, F. K. (see Thorogood, J. L.) 94

Crittenden, B. D. (see Kolaczkowski, S. T.) 49

D

David, S. L. (see Van Lith, C.) 127

Davies, G. A. (see Feord, D. M.) 37

E

Edwards, J. C. and Bujac, P. D. B., Design for hygiene 203

F

Feord, D. M. and Davies, G. A., An analysis of the performance of a mesh filter to remove viscous liquid droplets from an air stream 37

Fox, A. G. (see Belshaw, C.) 219

French, R. W., Olsen, R. E. and Peloquin, G. L., Quantified risk as a decision aid 7

G

Gabe, D. R. (see Walsh, F. C.) 107

Gerrard, A. M. and Stephenson, T., Some economic targets for inoculum enhanced activated sludge processes 269

Griffiths, J. F. (see Richardson, S. M.) 239

H

Hamer, G., Aerobic biotreatment: The performance limits of microbes and the potential for exploitation 133

Hidajat, K., Aracil, J. and Kenney, C. N., Adsorption of methyl iodide on charcoal: Mass transfer rates in a recycle adsorber 57

Hidajat, K., Aracil, J. and Kenney, C. N., Adsorption of methyl iodide on charcoal: Fixed bed adsorption of methyl iodide on charcoal 67

Horsley, D. M. C., The reduction of radioactive discharges from Sellafield 140

Hosker, D. (see Belshaw, C.) 219

J

Jefferies, T. M. (see Kolaczkowski, S. T.) 49

Jones, A. P. (see Belshaw, C.) 219

K

Kenney, C. N. (see Hidajat, K.) 57, 67

King, M., Technologies for controlling the emission of volatile organic compounds to the atmosphere 207

Kolaczkowski, S. T., Beltran, F., Crittenden, B. D. and Jefferies, T. M., Catalytic combustion of polychlorinated biphenyls 49

L

Lunn, G. A., Safety of powder handling systems: Review and detailed discussion of venting 155

M

McKay, G. (see Al-Duri, B.) 254

Mahi, P. (see Thonchk, N. K.) 101

Malle, K.-G., Water protection in Germany and its impact on the chemical industry 273

Marsh, R. (see Van Lith, C.) 127

Marshall, V. C., The social acceptability of the chemical and process industries: A proposal for an integrated approach 83

Meadowcroft, D. B. (see Stringer, J.) 181

Merz, E., Sewage sludge: Useful material or waste? 214

Moore, P. E., Industrial explosion protection—venting or suppression? 167

O

Olsen, R. E. (see French, R. W.) 7

P

Parsons, A. C. C. (see Arrowsmith, A.) 176

Peloquin, G. L. (see French, R. W.) 7

Q

Quinn, J. D. (see Steele, D. F.) 115

R

Reuben, B. G. (see Thonchk, N. K.) 101

Richardson, D. (see Steele, D. F.) 115

Richardson, S. M., Saville, G. and Griffiths, J. F., Autoignition—occurrence and effects 239

S

Saville, G. (see Richardson, S. M.) 239

Sevon, D. W. and Cooper, D. J., Experimental investigation of combustion efficiency in a circulating fluidized bed organic waste incinerator 277

Steele, D. F., Richardson, D., Campbell, J. D., Craig, D. R. and Quinn, J. D., The low-temperature destruction of organic waste by electrochemical oxidation 115

Stephenson, T. (see Gerrard, A. M.) 269

Stringer, J. and Meadowcroft, D. B., A review of hot gas clean-up requirements for coal fired gas turbines 181

T

Thonchk, N. K., Reuben, B. G. and Mahi, P., A comparative study of the mass transfer kinetics of ion-pair and ion-exchange systems in the removal of thiocyanate ions from coal gasification effluents 101

Thorogood, J. L. and Crawley, F. K., Design and operation of a single vent diverter system 94

Turney, R. D., Designing plants for 1990 and beyond: Procedures for the control of safety, health and environmental hazards in the design of chemical plant 12

V

Van Lith, C., David, S. L. and Marsh, R., Design criteria for biofilters in a recycle adsorber 127

W

Walsh, F. C. and Gabe, D. R., The application of rotating cylinder electrode reactors to metal recovery from industrial process liquors 107

Williams, P. T., The formation and control of dioxins and furans from the incineration of municipal waste 122

Wilson, K. C., Process control, plant safety and the human factor: Lessons to be learned from a major refinery incident 31

TITLES AND KEYWORDS FOR PAPERS

A
activated sludge 269
adsorption 57, 67
Adsorption of methyl iodide on charcoal: Mass transfer rates in a recycle adsorber, Hidajat, K., Aracil, J. and Kenney, C. N. 57
aerobic 133
Aerobic biotreatment: The performance limits of microbes and the potential for exploitation, Hamer, G. 133
air filter 37
air oxidation 17
Analysis of the performance of a mesh filter to remove viscous liquid droplets from an air stream, An, Feord, D. M. and Davies, G. A. 37
Application of rotating cylinder electrode reactors to metal recovery from industrial process liquors, The, Walsh, F. C. and Gabe, D. R. 107
assessment 195
autoignition 239
Autoignition—occurrence and effects, Richardson, S. M., Saville, G. and Griffiths, J. F. 239

B
batch adsorption 254
bioaugmentation 269
biofilters 127
biological 127
biotreatment 133
burning 17

C
catalytic combustion 49
Catalytic combustion of polychlorinated biphenyls, Kolaczkowski, S. T., Beltran, F., Crittenden, B. D. and Jefferies, T. M. 49
causation 239
charcoal 57, 67
charging 219
CIMAH 195
CIMAH and the environment, Cassidy, K. 195
circulating fluidized bed combustion 277
CLICHE—A generally applicable and practicable offshore explosion model, Catlin, C. A. 245
coal fired turbines 181
combustion efficiency 277
Comparative study of the mass transfer kinetics of ion-pair and ion-exchange systems in the removal of thiocyanate ions from coal gasification effluents, A, Thonchk, N. K., Reuben, B. G. and Mahi, P. 101
Comparison in theory and application of several mathematical models to predict kinetics of single component batch adsorption systems, Al-Duri, B. and McKay, G. 254
confined 245

D
dangerous substances 219
deposition 181
Design criteria for biofilters in a recycle adsorber, Van Lith, C., David, S. L. and Marsh, R. 127
Design for hygiene, Edwards, J. C. and Bujac, P. D. B. 203
Designing plants for 1990 and beyond: Procedures for the control of safety, health and environmental hazards in the design of chemical plant, Turney, R. D. 12
Design and operation of a single vent diverter system, Thorogood, J. L. and Crawley, F. K. 94
Design of reactor relief systems, The, Duxbury, H. A. and Wilday, A. J. 24
destruction 115
dioxins 122
disbenefits 83
discharges 140
diverter system 94
drying of sewage sludge 214

E
EARP 140
economics 269
Economic targets for inoculum enhanced activated sludge processes, Some, Gerrard, A. M. and Stephenson, T. 269
effluent standards 219
effluent treatment 101
electrochemical 107, 115
emission control 207
emissions 83, 127
environment 133, 195
environmental protection 12
equilibrium 254
erosion 181
Experimental investigation of combustion efficiency in a circulating fluidized bed organic waste incinerator, Sevon, D. W. and Cooper, D. J. 277
explosion 31, 245
explosion pressure 239
explosions 155, 167
exposure levels 203
Exxon Chemical 7

F
fire 17, 31
Fixed bed adsorption of methyl iodide on charcoal, Hidajat, K., Aracil, J. and Kenney, C. N. 67
Formation and control of dioxins and furans from the incineration of municipal wastes, The, Williams, P. T. 122
furans 122

G
gas absorption 176
gas dispersion 94
Gaseous emission control by gas absorption—some case studies, Arrowsmith, A., Ashton, N. and Parsons, A. C. C. 176
gasification 101
Gas phase ignition in liquid phase air oxidation processes: A recipe for disaster, Alexander, J. M. 17
Germany 273

H
hazard 195
hazard evaluation 7
hazard management 7
hazardous waste 49
hazard study procedures 12
health 12
high pressure 239
hot gas cleaning 181
hydrocarbon mixtures 239
hydrocarbon processing 31
hygiene 203

I
incineration 122
Industrial effluent management and control in the North West, Belshaw, C., Jones, A. P., Hosker, D. and Fox, A. G. 219
Industrial explosion protection—venting or suppression? Moore, P. E. 167
inoculum addition 269
internal 17

K
kinetics 101, 254

L
legislation 219
liquid–liquid extraction 101
liquid phase 17
liquid waste incineration 277
Low-temperature destruction of organic waste by electrochemical oxidation, The, Steele, D. F., Richardson, D., Campbell, J. D., Craig, D. R. and Quinn, J. D. 115

M
major hazards 195
management 83, 219
mass transfer 101

mass transport control 107
mathematical models 107, 254
metal powders 107
metal removal 107
methyl iodide 57, 67
microbes 133
model 245
modelling 269
municipal waste 122

O
objective 219
odour 127
offgas 127
offshore 245
organic 115
organic contaminants 273
oxidation 115

P
particle trajectory calculations 181
PCBs 49
peat filters 127
PFBC 181
Piper Alpha 245
plant design 12
pollutants 133
pollution 176, 195
powders 155
prediction 203
pressure (relief) 24
Process control, plant safety and the human factor: Lessons to be learned from a major refinery incident, Wilson, K. C. 31
process design 203

Q
QRA (Quantified Risk Assessment) 7
Quantified risk as a decision aid, French, R. W., Olsen, R. E. and Peloquin, G. L. 7

R
radioactive 140
radioactivity in sewage sludge 214
reactor 24
recovery 207
recycle adsorber 57
Reduction of radioactive discharges from Sellafield, The, Horsley, D. M. C. and Howden, M. 140
reliability 7
relief 24
Review of hot gas clean up requirements for coal fired gas turbines, A, Stringer, J. and Meadowcroft, D. B. 181
risk 195
risk management 7
rotating cylinder electrode reactor 107

S
safety 12, 155, 167
Safety of powder handling systems: Review and detailed discussion of venting, Lunn, G. A. 155
Sandoz 195
scrubbing 176
Sellafield 140
Seveso 195
Sewage sludge: Useful material or waste?, Merz, E. 214
sewage sludge contaminants 214
silver 115
single phase gas dispersion 94
single vent diverter system 94
SIXEP 140
Social acceptability of the chemical and process industries: A proposal for an integrated approach, The, Marshall, V. C. 83
spontaneous ignition 239
stochastic model 37
suppression 167

T
taxonomy 83
Technologies for controlling the emission of volatile organic compounds to the atmosphere, King, M. 207
thiocyanate recovery 101
two-phase (flow) 24
two phase systems 94

V
venting 24, 155, 167
vents 24
viscous droplets 37
volatile organic compounds 207

W
waste 115
wastewater 133, 273
Water protection in Germany and its impact on the chemical industry, Malle, K-G. 273
Water Resources Act 273

REGULAR FEATURES

List of Referees 294
Recent safety and environmental legislation 79, 148, 233, 289
Technical note: Quantification of emissions using dispersion modelling and air monitoring, Kaufman, R. A., Kaufman, P. E., Jones, A. L. and Siegell, J. H. 231

BOOKS REVIEWED

Chemical hazards in the workplace, Ronald M. Scott (Lewis Publishers). Reviewed by G. W. Pearson. 287
Critical aspects of safety and loss prevention, T. A. Kletz (Butterworths). Reviewed by M. Considine. 229
Emerging technologies in hazardous waste management, D. W. Tedder and F. G. Pohland (eds) (American Chemical Society). Reviewed by A. L. Downing. 286
Environmental impacts of hazardous waste treatment, storage and disposal facilities. R. N. Salcedo, F. L. Cross, Jnr and R. L. Chrismon (Technomic Publishing Corporation). Reviewed by G. Rae. 147
Handbook of hazardous waste incineration. C. R. Brunner (John Wiley (New York)). Reviewed by M. Woodfield. 75
Methods for assessing and reducing injury from chemical accidents—Scope 40. P. Bourdeau and G. Green (eds) (John Wiley & Sons). Reviewed by I. Hymes. 228
Radioactive waste management. R. E. Berlin and C. C. Stanton (John Wiley & Sons). Reviewed by Manfred Laser. 75
Safety cases (within the Control of Industrial Major Accident Hazard (CIMAH) Regulations 1984). F. P. Lees and M. L. Ang (Butterworths). Reviewed by M. Selway. 228
Safety of the nuclear fuel cycle. K. Ebert and R. v. Ammon (eds) (VCH). Reviewed by D. S. Barnes. 76
The remote sensing of oil slicks, A. E. Lodge (ed) (John Wiley and Sons). Reviewed by Christopher Legg. 287
The risk assessment of environmental hazards: A textbook of case studies. Dennis J. Paustenbach (ed) (John Wiley & Sons). Reviewed by Frederick Warner. 77